U.S., Canada tackle acid rain problem Page 15

Chemical & Engineering NEWS
December 3, 1979

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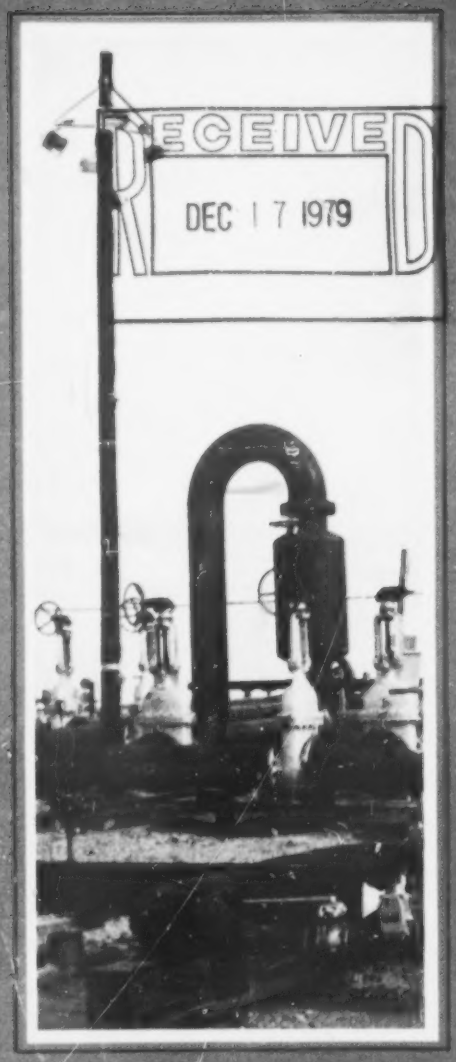
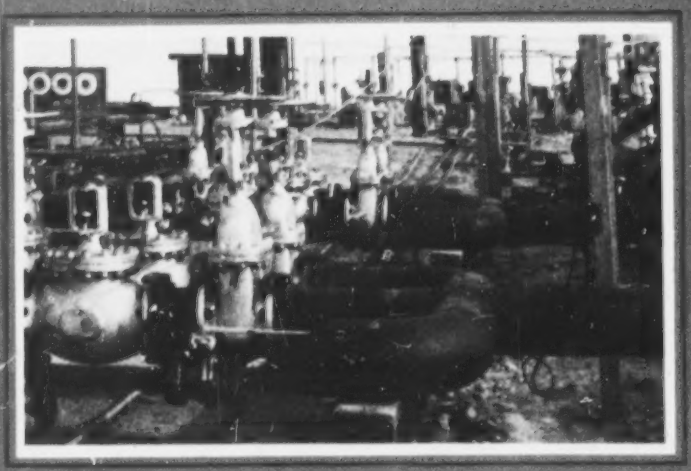



# UNDERGROUND COAL GASIFICATION

Entering crucial development phase Page 19



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# Chemical & Engineering NEWS

*Cover:* Aboveground setup for Lawrence Livermore Laboratory's underground coal gasification at Hoe Creek, near Gillette, Wyo.

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## News of the Week

- ***Oxirane Chemical's process*** *to make ethylene glycol directly from ethylene has proved a failure; after two years of low operating rate and subpar product, plant has been shut down, tightening glycol market.* ***Page 6***
- ***Pennwalt predicts fourth-quarter earnings*** *of almost $14 million, up 32% over 1978's like period; chlorine and caustic soda market is on the rise.* ***Page 7***
- ***U.S. acrylic fibers are being dumped*** *in Western Europe, Commission of the European Communities finds; imposes duty of up to 25% on imports in EC countries.* ***Page 7***
- ***High energy prices*** *will force the consumer to conserve and fossil fuels and light-water nuclear reactors can see the U.S. through the short term.* ***Page 7***
- ***Second of semiannual series of regulatory calendars*** *published by the government's Regulatory Council contains data on economic impact and cost impact of many of the proposed regulations.* ***Page 8***
- ***Production-scale gas chromatograph*** *developed by French firms, in operation at SCM organic chemical plant in Jacksonville, Fla., can handle about 100 metric tons of purified product per year.* ***Page 8***

## Business

- ***Tax break is likely for industry*** *in 1980. Legislation permitting faster depreciation of existing assets, which would encourage a stepup in capital investment, has good change of being passed.* ***Page 10***
- ***Chemical industry is getting safer*** *for workers. Incidence of injury rate was 7.2 per 100 full-time workers in 1978, down from 7.3 in 1977, 8.2 in 1976.* ***Page 12***

## Government

- ***Agreement to reduce air pollution*** *and its by-product, acid rain, has been signed by 33 nations in Geneva; U.S. and Canada speed up their own efforts to halt transboundary air pollution.* ***Page 15***

## Technology

- ***Underground coal gasification*** *is at the threshold of a crucial precommercial development phase; if experiments are successful, this gasification method could help offset energy crunch.* ***Page 19***
- ***New method to clean geothermal steam*** *used for generation of electricity has been developed by EIC Corp; process removes 95% of hydrogen sulfide from single stream with recyclable copper sulfate.* ***Page 29***

## Books

- ***Geneticist paints stark picture*** *of a crisis linking both science and western civilization—a crisis created by scientists' betrayal of their values.* ***Page 33***

## ACS News

- **CA Selects** ***series*** *of biweekly current-awareness publications is adding 30 more titles in January.* ***Page 36***

# Business likely to receive tax breaks in 1980

**Legislation allowing faster depreciation of existing assets probably will be passed to encourage increased capital investment**

William F. Fallwell
and William J. Storck
C&EN, New York

Complaints about taxes are nothing new. The seeds of Proposition 13 go back as far as the Greeks when philosopher Plato accused a tyrant of impoverishing the citizenry by taxation. That way, citizens would be so busy supplying basic needs that they would have no time to conspire against the ruler.

Taxes today are no less political than they were in Plato's time. Tax rates are raised during inflation to slow the economy. Rates are lowered during recession to spur the economy. And in their most political use, they are lowered during election years to curry favor with voters.

In the past these changes have been made without the insistence of the voters. But recently, the voters have been quite vocal on revision of tax laws. These revisions range from cuts in rates to limits on spending. And the mood is not confined to the individual taxpayer.

Recently, the mood has spread, although for different reasons, to business. Businessmen want a cut in taxes primarily to spur capital investment, which they say has been lagging through the 1970's.

The U.S. chemical industry is well represented among proponents of investment-targeted tax breaks for 1980. The big hope, rated a good chance for success, is faster depreciation on existing assets. This increases the current set-aside from revenues for building new plants, although it also reduces the tax take from business. This drawback could weigh considerably in deficit-ridden Washington.

The chemical industry can point to its own record in the past decade for the effect of lower tax rates on investment. With an average tax rate falling from 45.6% in 1968 to 38% in 1978, largely through the investment tax credit, the chemical industry has pushed up capital expenditures as a percentage of net plant from 15.7% to 21.3% during the same 11-year period.

But even this relatively greater replacement rate on old plants isn't enough, chemical officials say. And many other industries on which the chemical industry depends as customers or suppliers are not investing even this fast. As a result, they point out, the U.S. has the oldest average industrial plant in the noncommunist world.

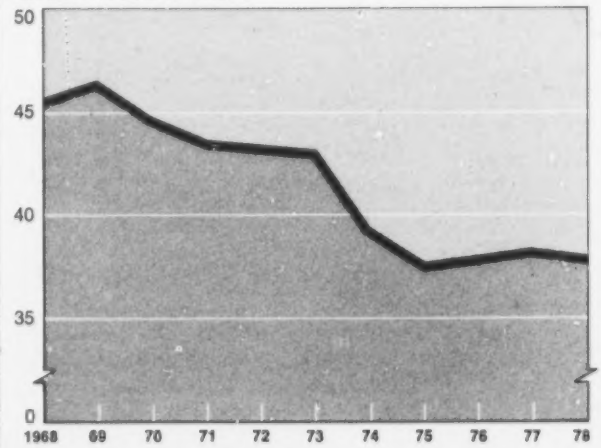
Also, U.S. consumer dollars are chronically outpacing the supply of goods and jobs. The result: inflation, the lowest savings rate among industrialized countries, and high unemployment.

J. Peter Grace, president and chief executive officer of W. R. Grace & Co., has called for complete elimination of the capital gains tax as a way to bring more investors into the economy.

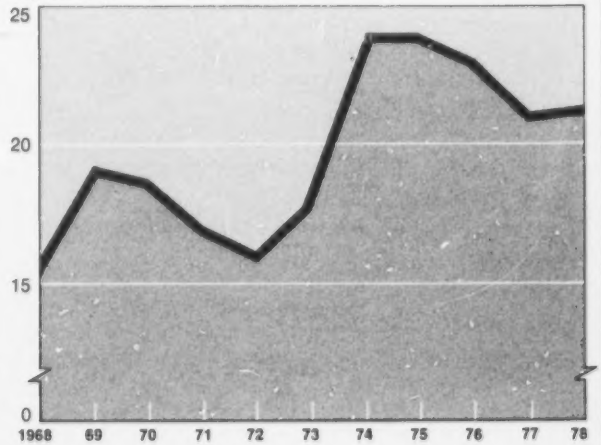
And Warren M. Anderson, president of Union Carbide, told a meeting of the Drug, Chemical & Allied Trades Association in New York City earlier this month that there is an urgent need to generate capital and cash flows for new investment.

Anderson said, "Our task in the next decade will be no less than retooling and modernizing the industrial base of the U.S. Our plant and equipment is on average older and less efficient than [that of our] European and Japanese competitors, and our national fiscal policies have yet to deal with this very fundamental problem."

**Chemical industry's falling tax rate . . .**




**. . . coincides with rising rate of investment**




**Note:** Figures are for chemicals and allied products. **Sources:** Federal Trade Commission, C&EN

## Investment tax credit already shaves the tax rate for leading U.S. chemical companies

| | 1978 | | | | | 1977 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Federal tax rate | State, local taxes | Investment tax credit | Other tax adjustment | Effective tax rate | Federal tax rate | State, local taxes | Investment tax credit | Other tax adjustment | Effective tax rate |
| Air Products | 48% | 2.8% | −3.6% | 2.8% | 50.0% | 48% | 2.5% | −3.1% | −1.9% | 45.5% |
| Allied Chemical | 48 | 0.6 | −5.4 | 11.9 | 55.1 | 48 | 1.9 | −4.5 | −2.5 | 42.9 |
| American Cyanamid | 48 | 0 | −8.4 | −2.0 | 37.6 | 48 | 0 | −7.0 | −2.1 | 38.9 |
| Big Three Industries | 48 | 0 | −10.7 | −2.0 | 35.3 | 48 | 0 | −19.5 | −1.3 | 27.2 |
| Celanese | 48 | 0 | −15.7 | −0.2 | 32.1 | 48 | 0 | −9.7 | 2.5 | 40.8 |
| Diamond Shamrock | 48 | 0 | −11.3 | −6.7 | 30.0 | 48 | 0 | −7.9 | −4.1 | 36.0 |
| Dow Chemical | 48 | 1.0 | −7.0 | −2.3 | 39.7 | 48 | 1.2 | −6.7 | −2.6 | 39.9 |
| Du Pont | 48 | 2.0 | −3.5 | −5.7 | 40.8 | 48 | 2.0 | −4.2 | −2.2 | 43.6 |
| Ferro | 48 | 0 | −1.2 | −4.2 | 42.6 | 48 | 0 | −1.1 | −1.4 | 45.5 |
| W. R. Grace | 48 | 1.9 | −3.5 | 0.5 | 46.9 | 48 | 1.5 | −6.3 | 3.1 | 46.3 |
| Hercules | 48 | 0 | −3.0 | −3.0 | 42.0 | 48 | 0 | −9.0 | 6.0 | 45.0 |
| International Flavors | 48 | 0 | 0 | −3.5 | 44.5 | 48 | 0 | 0 | −1.5 | 46.5 |
| International Minerals | 48 | 0 | −5.6 | −2.8 | 39.6 | 48 | 0 | −8.2 | −5.7 | 34.1 |
| Liquid Air | 48 | 0 | −8.4 | −3.4 | 36.2 | 48 | 0 | −6.6 | −6.4 | 35.0 |
| Lubrizol | 48 | 0 | −0.6 | −3.4 | 44.0 | 48 | 0 | −8.9 | −2.0 | 45.1 |
| Monsanto | 48 | 1.3 | −4.9 | 3.1 | 47.5 | 48 | 8.6 | −7.3 | −1.9 | 47.4 |
| Nalco Chemical | 48 | 1.7 | −1.1 | −2.3 | 46.3 | 48 | 1.8 | −1.7 | −2.1 | 46.0 |
| Olin | 48 | 2.3 | −16.9 | −5.4 | 28.0 | 48 | 2.8 | −12.4 | −3.7 | 34.7 |
| Pennwalt | 48 | 0 | 0 | 3.6 | 44.4 | 48 | 0 | 0 | −0.7 | 47.3 |
| Petrolite | 48 | 0 | −1.1 | −3.2 | 43.7 | 48 | 0 | −8.3 | −.8 | 40.9 |
| Reichhold Chemicals | 48 | 2.3 | −4.0 | −5.6 | 40.7 | 48 | 1.6 | −9.4 | −2.8 | 37.4 |
| Rohm & Haas | 48 | 0 | −3.4 | 0.9 | 45.5 | 48 | 0 | −9.1 | −2.3 | 36.6 |
| Stauffer Chemical | 48 | 2.0 | −9.0 | −3.0 | 38.0 | 48 | 2.0 | −7.0 | −1.0 | 42.0 |
| Union Carbide | 48 | 0.8 | −3.1 | −12.9 | 32.8 | 48 | 0.7 | −2.6 | −16.0 | 30.0 |
| Witco Chemical | 48 | 0 | −1.4 | −2.1 | 44.5 | 48 | 0 | −2.7 | −1.9 | 43.4 |
| AVERAGE | 48% | 0.7% | −5.3% | −2.0% | 41.1% | 48% | 1.1% | −6.0% | −2.2% | 40.7% |

Source: Price Waterhouse

Anderson went on, "Capital will flow into new investment if present disincentives in our tax structure are removed. We need significant tax reforms that will encourage and reward savings and investment, and sound monetary and fiscal policies that will enable business to deploy investment more effectively. There are important moves afoot in Washington to confront these problems, and they have gained momentum from successes like the reduction in capital gains tax in 1978. Although the tax rate [on capital gains] was cut almost in half, federal capital gains receipts will increase as a result."

One of the moves that Anderson refers to, and which probably will pass next year, is the Capital Cost Recovery Act, sponsored by Rep. James R. Jones (D.-Okla.) and Rep. Barber B. Conable (R.-N.Y.). Under this legislation, depreciation is speeded up. Instead of useful-life depreciation of up to 20 or 30 years, based on complex formulas, the write-offs would be condensed to 10 years for structures, five years for machinery and equipment, and three years for light transportation vehicles. The 10-year term on structures may, if the bill is passed, be stretched to 15 or 20 years to counter some opposition.

By shortening the time in which assets are depreciated, a company could take bigger deductions and thus realize greater tax savings each year. In theory then, these tax savings would be reinvested in the company's business. Thus, the savings would stimulate capital investment and create new jobs.

R. Heath Larry, president of the National Association of Manufacturers, told a Conference Board meeting on taxation late last month, "This fundamental change in depreciation policy is a very necessary step if the existing tax structure is to be constructively reformed to remove tax obstacles to capital formation. It is a broad-based change. It would substantially reduce the bias against investment. It would not be a targeted approach to specific taxpayers or specific economic activities."

Carbide's Anderson told the DCAT meeting: "The Jones-Conable bill . . . would streamline depreciation to enable businesses small and large to recover their capital investments more quickly. It is a measure that should be acceptable to the public, because businesses can take advantage of it only for new investments—and that means jobs and growth."

However, in spite of assurances from many that the measure would get public support, or at least not receive general public condemnation, many tax experts say that it will not be passed as a separate measure. If the Jones-Conable legislation is passed, they say, it will be part of a broader tax bill that will include a general tax cut of about $20 billion to make the business tax reforms more palatable.

One of the things that may make the bill more acceptable is the effect it is expected to have on employment. Rep. Jones, one of the two originators of the proposed legislation, told the Conference Board tax meeting that Data Resources, an economics consulting company, has predicted that, besides raising investment and causing a turnaround in productivity, the bill will provide about 1.2 million jobs over the next five years if it is enacted. □